USER'S MANUAL

SatKing

DVBS-HD600CA

HD Digital Satellite Receiver

HDMI™ HIGH DEFINITION

Table of contents

1. General Information ----2
1.1 Important Safety Instructions ----2
1.2 Markings on the Rear Panel ----2

2. Control and Functions ----3
2.1 Remote Control Unit ----3
2.2 Front Panel ----4
2.3 Rear Panel ----4
2.4 Installation of receiver ----5

3. Channel Search ----6
3.1 Dish Setup ----6
3.1.1 Motor Edit ----6
3.1.2 Set Limit ----6
3.1.3 Set Location ----7

4. Channel Manager ----7

5. System Settings ----8
5.1 System Option ----8
5.2 AV Setting ----8
5.3 Time Setting ----8
5.4 Set Password ----9
5.5 Box Information ----9
5.6 Factory Default ----9

6. General Viewing Function ----9
6.1 Program Information ----9
6.2 Channel List ----10
6.3 EPG (Electronic Program Guide) ----10
6.4 Satellite List ----10
6.5 Favourite List ----10
6.6 Zoom Function ----10
6.7 Audio ----10
6.8 TV/Radio ----11
6.9 TV/SAT mode ----11
6.10 Recall ----11

7. USB Function ----11

8. Technical Specification ----14

9. Trouble Shooting ----16

1. General Information

1.1 Important Safety Instructions

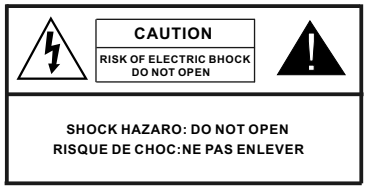
- Read this user manual before starting your operation.
- Never open the cover.
- If you don't use this unit for long time, please pull the power plug out form the outlet. Do not use a damaged power cord.
- Do not touch the power with wet hands.
- Install the dish with correct direction and angle.
- Install the unit in place with:
  Good Ventilation
  Suitable Temperature
  No Direct Sunrays
  Low Humidity
- Do not put heavy objects on the unit.

1.2 Marks on the Rear Panel

General:

The marks appear on the rear panel of the receiver.

Part 1



CAUTION:
To reduce the risk of electric shock, do not remove the rear panel. Equipment service and maintenance should be undertaken only by trained technician.

Part 2

This symbol indicates that electric shock may happen due to improper operation.

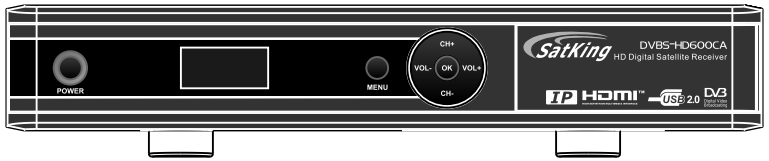
The symbol indicates that serious danger may happen due to improper operation.

2. Control and Functions

2.1 Remote Control Unit

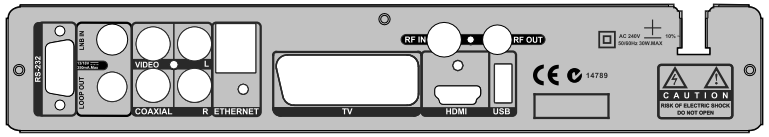
POWER	Turn on/off the STB
TV/SAT	Switch among TV/AV VCR mode
MENU	Show the main menu or exit back to previous menu
MUTE	Enable or disable the audio output
0-9	Select channels or enter programming
EXIT	Escape from present menu and save the settings
OK	Confirm the selected item or show the channel list
CH+/CH-(▲)(▼)	Channel change or move cursor up or down
VOL+/VOL-(◄)(►)	Volume Control or move cursor left or right
SAT	Display the searched satellite list
EPG	Display the TV/Radio Program Guide
FAV	Display the favourite list
AUDIO	To set the output direction for speaker and change the Audio Language
TV/RADIO	Switch between TV and Radio mode
INFO	To display channel status or various program information for current channel
RECALL	Switch to the previous viewed channel
FIND	Enter to Find Channel Menu
P/N	PAL/NTSC selection
TIMER	Enter to Timer Setting Menu
ZOOM	Zoom in the selected picture
TTX	Switch to teletext mode
SUB.T	Switch to subtitle mode
PAUSE	Pause the ongoing video and audio
REC	To record current channel
▶	Play or resume
■	Stop Play
▶▶	Fast forward
◀◀	Fast backward
T/S	Time shift
•••VOL•••	Increase or Decrease the volume
•••PAGE•••	Page up or page down

2.2 Front Panel



KEY	FUNCTION
POWER	Turn on/off receiver
MENU	Shows the main menu or back to previous menu
OK	Confirm the selection, or jump back to last menu
CH+/CH-	Channel change(Up/Down)
VOL+/VOL-	Volume Control(Up/Down)

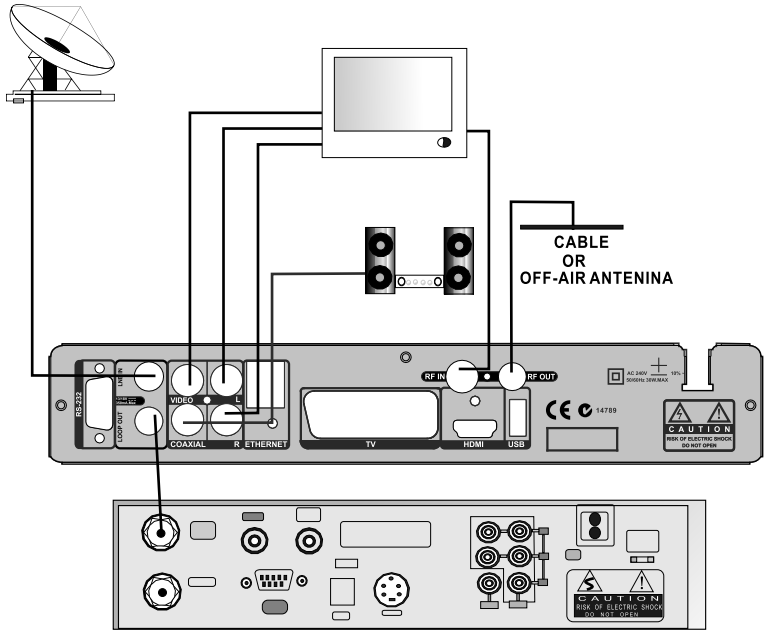
2.3 Rear Panel



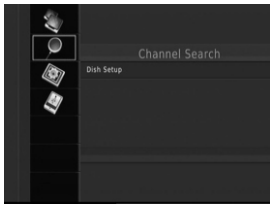
CONNECTOR	FUNCTION
LNB IN	Connect to satellite antenna cable
LOOP OUT	Connect to another receiver(IF loop through output from digital tuner)
RS232	Connect to PC for software upgrade
VIDEO	Connect to TV's video port
AUDIO R/L	Connect to TV'S audio port
COAXOAL	Connect to the TV for digital audio output
TV SCART	Connect to TV through SCART cable
RF IN	Signal input from local CATV network or outdoor TV antenna
RF OUT	UHF RF output to TV sets antenna in
HDMI	Connect to TV's HDMI port
ETHERNET	Connect the Ethernet port

2.4 Installation of receiver

Please refer to the right way for installation as following picture.



3. Channel Search



- Press **Up/Down** keys to highlight the Installation item in main menu and press **OK** key.
- This menu consists of one sub-menus as Dish Setup.

3.1 Dish Setup

- Under the “Dish Setup” menu, you can edit satellite data and LNB information.
- Press **Left/Right** key to move left side or right.side
- Press **Red** key to add new.satellite or transponder
- Press **Green** key to edit satellite or transponder
- Press **Yellow** key to delete satellite or transponder
- Press **Blue** key to start scan satellite channel
- Press **POS** key to switch display satellite list or transponder list
- **Satellite list:** Select the satellite which you need to be searched.
- **Transponder list:** Select the transponder which you need to be searched
- **Transponder:** Switch among all the transponders carried on the satellite shown in the first item.
- **LNB Type:** Select the frequency value and single or dual frequency of your LNB. This is based on your real LNB device type.
- **LNB Power:** Select the LNB Power to Off, 13/18V, 13V or 18V.
- **Switches (22K, Toneburst, DiSEqC1.0, DiSEqC1.1):** To configure the antenna with those switches.
- **Switches Motor mode:** Select the motor mode to None, DiSEqC1.2 and DiSEqC1.3. if select DiSEqC1.2, press **Red** key to set limit, and if select DiSEqC1.3, **Red** key to set limit and **Green** key to set location

3.1.1 Motor Edit

If you connect a DiSEqC1.2 motor, then select the **Motor** type to DiSEqC1.2 or DiSEqC1.3, and press **OK** key, the following items will be displayed.

- **Move Auto:** press **Left/Right** keys to move your antenna east or west. If signal locked, motor will stop automatic.
- **Move Continue:** press **Left/Right** keys to move your antenna east or west. Motor will continue move and stoped if motor limit or move to motor edge
- **Move Step:** press **Left/Right** keys to move your antenna one step to east or west. Motor will stoped if limit or goto motor edge
- **Store Position:** Press **OK** key to save the current position.
- **Goto Position:** Press **Left/Right** key to move motor to stored position.
- **Goto Reference:** Press **OK** key to move the motor to the reference position.
- **GotoX:** Press **Left/Right** key to move motor to stored position.

3.1.2 Set Limit

If you connect a DiSEqC1.2 motor, then select the **Motor** type to DiSEqC1.2 or DiSEqC1.3, and press **Red** key, the following items will be displayed.

- **Move Continue:** press **Left/Right** keys to move your antenna east or west. Motor will continue move and stoped if motor limit or move to motor edge.
- **Move Step:** press **Left/Right** keys to move your antenna one step to east or west. Motor will stoped if limit or goto motor edge.
- **Set West Limit:** press **Left/Right** keys set current motor position to be west limit
- **Set East Limit:** press **Left/Right** keys set current motor position to be east limit
- **Goto Reference:** Press **Left/Right** key to move the motor to the reference position
- **Disable Limit:** Press **Left/Right** key to clear motor's all saved position

3.1.3 Set Location

If you connect a USALS positioner, first get your longitude and latitude, then select the **Motor** type as DiSEqC1.3, and press **Green** key, the following items will be displayed.

- **Location:** Press **Left/Right** keys to Select the local location of predefined or manual input longitude and latitude
- **Longitude Direction:** Press **Left/Right** keys to select longitude as East or West.
- **Longitude Angle:** press **0..9** numeric key to modify the local longitude angle value.
- **Latitude Direction:** Press **Left/Right** keys to select longitude as North or South.
- **Latitude Angle:** press **0..9** numeric key to modify the local latitude angle value.

4. Channel Manager

This menu allows you delete channels, lock channels, move channels, rename channels, set skip channel, sort channels and set favourite channels etc.

- Press **POS** key to popup satellite list to choose edit satelite name
- Press **Red** key to move select channel to new position
- Press **Green** key to set channel whick can be skipped, if set skip, when toggle channel, will cannot toggle to it
- Press **Yellow** key to set channel to be locked
- Press **Blue** key to delete channel
- Press **FAV** key to set channel to be favorite channel
- Press **Info** key to active a edit dialog to rename channel name

5. System Settings

- This menu consists of sub-menus as shown below:
  System Option
  AV Setting
  Time Setting
  Set Password
  Box Information
  Restore Factory Default

5.1 System Option

- **OSD Language:** Press **Left/Right** keys to select your desired language.
- **Subtitle Language:** Select the first language to listen if this language is supported by current subtitle data. This depends on the TV content provider
- **Audio Language:** Select the first language to listen if this language is supported by current program. This depends on the TV content provider
- **Digital Audio:** Press **Left/Right** keys to select the digital audio output mode as PCM, RAW or Off
- **Banner Time:** Set the delay time for information banner to be disappeared.
- **Recall list:** set recall list as ON or Off. If set to ON, then at watch channel mode, and press recall key Recall list window will opened, user can choose channel which had been watched.

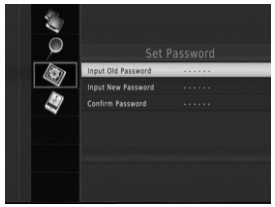
5.2 AV Setting

- **Aspect Ratio:** Select the TV Screen format 4:3 or 16:9 and letter box or panscan.
- **Resolution:** Select the HD Resolution 1080i, 720p, 576p or 576i.
- **TV Format:** Select the TV mode AUTO, PAL and NTSC.
- **Video Output:** Select the Video Output CVBS or RGB

5.3 Time Setting

- You can set your local time according your location.
- **Time Auto:** Set the receiver will get time information automatically from the satellite or not. If set to ON, will no need set **Date** and **Time** of Box time
- **Time Zone:** Select GMT of your local area, and set the current date and time.
- **Date:** Set box current date
- **Time:** Set Box current time
- **Sleep:** Select whether to do sleep after any times

5.4 Set Password



- The STB provides an active system lock function which allow you to block specific menu settings by means of a Six-digit security code. The default password is “000000”
- **Input Old Password:** Input old system password
- **Input New Password:** Input new system password
- **Confirm Password:** Input new password again to check password

Note: Do not forget the password. For further assitance, call your local distributor.

5.5 Box Information

- This menu display Software Version, Hardware Version, Date information and SN Data.

5.6 Factory Default

- The factory default allows user to restore the factory-reset values.
- When you press **OK** key, the password box appears,. Input the password, the Warning window will appear, if you select Yes, the system setup will be rest to the default values.

Warning: On selecting factory default you will lost all of data and information, which was previous installed.

6. General Viewing Function

The following describes the basic function of your STB while watching TV or listenging to Radio.

6.1 Program Information

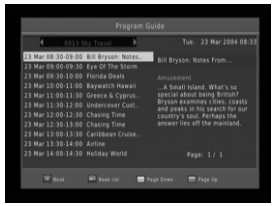
- This section explains the general information sent by the program provider while watching TV or listening to Radio.
- First press **Info** key will show small amout of information.
- Second press **Info** key will show more details of the current program.
- When information banner is being displayed. Press **Left/Right** keys will shows Current/Next Programme information. Press **Up/Down** keys to view to previous/next programme information.
- Press **Info** key again to remove the banner.

Note: Program information is not always sent with the program.

6.2 Channel List

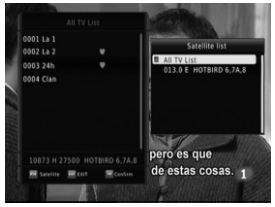
- In full screen play mode, press **OK** key to display the channel list.
- Press **Up/Down** and **OK** keys to enter the desired channel.
- Press **Red** key to enter Channel Type list. You can select satellite, FREE/CAS, alphabet and Video Definition types to display channels.
- Press **Green** key to enter Alphabet List to display channels according to alphabet.
- Press **Yellow** key to enter CAS list to display channels according to different CAS type.
- Press **Sat** key to enter Sat List to display channels according to different Sat type.
- Press **Info** key to find channel.

6.3 EPG (Electronic Program Guide)



- Electroic Program Guide(EPG) is to help you navigate program through all the possible viewing options. This receiver is equipped with a unique dual EPG system, which gives you easy eay to view the program information.
- The Guide supplies information such as program listing, starting and ending items for all available programs.
- Press the **EPG** key to show Program Guide menu.
- Press **Up/Down** keys to view the information in 7 days.
- Press **Yellow** and **Blue** key to change detail information page
- Press **OK** key to book current epg data to be a timer event
- Press **Left/Right** key to change current channel

6.4 Satellite List



- If you searched channels from more than on satelltie and want to have a channel for each satellite, press **SAT** key , the satellite list will be displayed.
- Press **Up/Down** keys to select the satelltie you want to view, then press **OK** key to enter channel list.

6.5 Favourite List

- Press **FAV** key to enter favourite channel list. In favourite list screen, press **FAV** key again to choose favourite type.

6.6 Zoom Function

- This function enable you to enlarge the picture. Press **Zoom** key then press **OK** key, the selected picture within the frame will be enlarged.

6.7 Audio

Volume

- Press **Left/Right** keys to adjust the volume
- Press **Mute** key to mute volume and press **Mute** key again to resume the volume.
- Press **Left/Right** keys also can resume the mute function.

Audio Control

- In Digital Satellite Broadcasts, the program provider can transmit multiple audio language simulantously.
- Press **Audio** key then press **Left/Right** keys to select one of three possible audio settings(Left, Right and Stereo).
- Press **Audio** key then press **Up/Down** keys to select audio language. This depends on the transmission of the audio signal.

6.8 TV/Radio

While watching a TV channel, press **TV/Radio** key to switch between TV and Radio mode.

6.9 TV/SAT mode

The **TV/SAT** key lets you change the mode from satellite to TV or VCR.
Press once to move to TV mode.
Press twice to move to VCR mode
Press three times to change back to satellite mode.

6.10 Recall

Press **Recall** key to switch to the previous channel you watched.

7. USB Function

The receiver intergrates USB port, which support the following device:

- USB portable harddisc
- USB memory

Note: Non-memory device such as keyboard and mouse are not supported.
There will appear usb insert notify menu while USB device is inserted to the USB port. That will mean usb device had been recognized and can use.

USB function as listed below:

- PVR(Personal Video Record)
- Timeshift record
- Multi-media file play
- Photo display
- Software Upgrade

Other features of USB function:

- Multi system format support:: Such as FAT12, FAT16, FAT32 and NTFS format.
- Mulit disk partition support
- Multi USB device support: user can user morethan one devices at the samen time by USB hub
- Mulit file format support: Support file format including(file extension name):
  BIN-----Update file
  JPG----Picture
  MP3----Audio file
  TS----PVR Record file
- Multimedia video file extension also support
- Multi HDD type support: Most of the HDD types are supported by the system.
- No limit to the HDD capacity: All current HDD capacity are supported by now.

USB Menu

There are 4 sub menu in USB menu, you can found this menu in main menu.

Multimedia
Software Update
DB Management
Update network.cfg

Under multimedia menu, include four feature: music, photo, movie and PVR

Music Player

There are three parts under this menu: folder amd file list, video window and file information.

OK key to enter directory or start to play current audio file.

Recall key to go back.parent folder

Photo Player

There are three parts under this menu: folder amd file list, video window and file information.

OK key to enter directory or start to show current photo file.

Recall key to go back.parent folder

Play key to start slide show mode

POS key to start grid show mode.

Multimedia Player

There are three parts under this menu: folder amd file list, video window and file information.

OK key to enter directory or start to show current video file.

Recall key to go back.parent folder

Red key to change show video as full screen or small window

Up/Down key to move cursor.

PVR Playback

There are three parts under this menu: folder amd file list, video window and file information.

OK key to enter directory or start to show current record file

Recall key to go back.parent folder

Red key to change show video as full screen or small window

Yellow key to delete PVR file

Green key to rename PVR file

Software Update

By this feature, user can update box software by step:

1. put upfile in usb disk.and should be named as rom_main.bin
2. Insert disk to box usb port.
3. Goto usb menu in main menu, and select “Software Update” item
4. On popup menu, select YES button, then box will auto reboot and start update process.

Warning: while updating box software data, should not power off and must wait for finish write data

DB Management

This feature can read box channel data to usb file or write usb channel data into box.

PVR Feature

You can record any audio and video data to hard disk, then listen and watch them afterwards. Any program can be recorded under current TP while watching current program. By pressing **REC** key, will start record and show a recording information on screen

While recording any programs, user can press **Stop** key to stop current recording.

PVR function also includes timeshift feature.

Time Shift

Time shift, also known as Pause live TV, lets you pause a broadcast program and continue watching it later.

- While watching TV, press **T/S** key.
  This will freeze the picture and sound and begin storing the program. The Time shift will be displayed, indicating how long the program has been paused.

Resume watching a time-shifted program

- Press ► key to play video content. The paused program will begin playing from the point of pausing. Press **Pause** key to pause video playback
- Fast Forward through time-shifted TV

While watching a time-shifted program, you can fast forward it at speeds of X1, X2, X4, X8, and X16.

8. Technical Specification

TRANSMISSION STANDARDS	
DVB-S2/S, MPEG-2,MPEG-4, H.264	
SATELLITE INPUT/DEMODULATION	
Connector Type	2XF Type(1 Input/1 Loop Through)
Input Frequency	950 to 2150 MHz
Signal Input Level	- 65 to 25 dBm
Band Switch Control	22KHz
LNB Supply	13.0 +0.5V/18V +0.7V, Max 500Ma
Demodulation Type	QPSK,8PSK
Symbol Rate	2<Rs<45 Mband(SCPC/MCPC)
AV output interface	
Video Output	CVBS/RGB,HDMI
Audio output	S/PDIF coaxial output interface/ Stereo Audio L/R output interface
TV SCART	
Video Output	CVBS/7575Ω unbalanced
RGB Bandwidth	5MHz
Fast Blanking	0V to 3V
Function Switch	6V-16:9 Aspect Ratio Image(AV Mode) 12V-4:3 Aspect Ratio Image(AV Mode)
Audio Output	"Left, Right"/ 600Ω unbalanced
Level	1.0V rms 2dB into 10kΩ
AUDIO/VIDEO PROCESSING	
Video decompression	MPEG-2 MP@HL, MPEG-1 Decoding,MPEG-4 ASP@L5 HD resolution,H.264 MP&HP@L4,HW JPEG decoding
Resolving rate	PAL-25 frame@720*576, NTSC-30 frame@720*480, HDMI 1080i@60Hz
Signal compatability	Support conversion for different video formats
Video data rate:	Up to 108Mbps
Video Format	4:3,16:9,By Pan & Scan and Letter Box conversion
Audio decompression	MPEG-1 Layerl/II, MPEG-2 Layer I/II,AAC,HE-AAC Level2&4
Audio output mode	Stereo, Joint stereo, Mono, Dual Mono;
DATA SERVICE PORT	
Connector	USB
Data protocol	USB2.0 interface
Connector	9-pin D-sub male
Data protocol	RS232C interface. The DVB-DSR is seen as the Data Communication Equipment (DCE) and the PC (or other terminal) is seen as the Data Terminal Equipment (DTE).
Data rate	Maximum of 625K bits/s

MEDIA FEATURES	
Picture	JPEG,BMP,PNG
Music	WMA, MP3, AAC(.wma, .mp3, .m4a)
Movie	MPEG1, MPEG2, MPEG4, H264, Motion JPEG (.avi, .mpg, .dat, .vob, .div, .mov, .mkv, .mjpeg, .ts, .trp)
File management system	NTFS,FAT32,FAT16 Copy,delete operation supported
POWER SUPPLY	
Type	Switching mode
Main input voltage	100 - 240V AC @ 50Hz/60Hz±5%
Power consumption	Max. 30W
Insulation resistance	More than 10MΩ at 500Vdc Ambient conditions of 28±2% & 70%RH
Standby Voltage(Hi-Pot)	I/p to O/p:3kV(1 min)
Temperature Rise	<75 on winding & core; <50 on casting At 264Vac @ 50Hz
Safety Standard	Designed to meet IEC 9
MICROPROCESSOR	
Microprocessor	MSTAR
Clock Frequency	216MHz
SDRAM Memory	128Mbyte
PHYSICAL CHARACERSTICS	
Front Panel	
Keys	7 Keys
Indicators	Power On/Off
Remote Control Input	Infra-red receiver
Display	4 Digit(7 Segment)
Real Panel	
Connections	1 RF Input / 1 RF Loop through output 1 x TV SCART 1 x HDMI 2 x Audio L/R (RCA) 1 x Video Signal (RCA) 1 x RS-232 (9-pin D-sub male) 1 x NET (Optional) 1 x Coaxial

9. Trouble Shooting

Problem	Possible Causes	What To Do
No display light up on front panel	Power Cord is not well plugged	Check to make sure power cord is plugged properly into power socket
No sound or picture, but the front panel red light is ON	The unit is in standby mode	Press the standby button
No sound or picture	The satellite dish is not pointing at the satellite	Adjust the dish. Check the Signal Level in the Antenna Setup Menu
Bad picture/Blocking Error	No signal or weak signal	Check the cable connections. LNB and other equipment connected between the LNB and the receiver and adjust the dish
	The satellite dish in not pointing at the satellite	Adjust the dish
	Signal is too strong	Connect a signal attenuator to the LNB input
	Satellite dish is too small	Change to a larger dish
	LNB noise factor too high	Change to an LNB with lower noise factor
	The LNB is faulty	Change the LNB
No picture(Video)	The system is connected by SCART cable and TV is not in AV/EXT mode	Check the UHF channel fixed in your system and tune the UHF properly
There is interference on your digital satellite channel	The system is connected using RF cable and the output channel of the receiver interferes with an existing terrestrial channel or Video Signal	Change the receiver output channel to a more suitable channel or connect the system using SCART cable
The RCU is not working	Out of battery	Change the battery
	RCU is aimed at wrong direction	Aim the RCU at the unit, and make sure no blocks between the front panel and RCU

Note: If you still cannot resolve the problem with above reference. Please contact the local dealer or their after-sales service center.